

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A communications system comprising:
a server;
a plurality of client terminals; and
a communications network which interconnects said server and said plurality of client terminals;
each said client terminal including means for establishing communication with said server;
said server including:
a memory for storing information about a plurality of separate and distinct disconnection conditions regarding disconnection of said plurality of client terminals, wherein some of said plurality of client terminals have different disconnections conditions than others;
decision means for monitoring a connection state between said each client terminal and said server and deciding whether or not said connection state corresponds to at least one of said disconnection conditions; and
disconnection means for disconnecting said a first client terminal when it is decided that said connection state corresponds to said at least one of said disconnection conditions.

2. (Previously Presented) The communications system defined in Claim 1, wherein said disconnection means comprises means for disconnecting a client terminal logged in at an earliest time when two or more client terminals have a same disconnection condition.

3. (Currently Amended) A communications system comprising:
a server;
a plurality of client terminals; and
a communications network which interconnects said server and said plurality of client terminals;

each said client terminal including means for transmitting a user identifier to issue a log-in request to said server;

said server including:

means for logging in client terminals in response to log-in requests from said plurality of client terminals;

a memory for storing a plurality of separate and distinct disconnection conditions regarding disconnection of said plurality of client terminals in conjunction with user identifiers, wherein some of said plurality of client terminals have different disconnection conditions than others;

retrieval means for retrieving at least one of said plurality of disconnection conditions based on said user identifier transmitted from ~~said~~ each client terminal; and

disconnection means for monitoring a connection state between ~~said~~ each client terminal and said server and disconnecting ~~said~~ a first client terminal when said connection state corresponds to said at least one of said disconnection conditions.

4. (Previously Presented) The communications system defined in Claim 3, wherein said disconnection means comprises:

decision means for monitoring said connection state between said client terminal and said server and deciding whether or not said connection state corresponds to said at least one of said disconnection conditions; and

client disconnection means for disconnecting said client terminal when said connection state corresponds to said at least one of said disconnection conditions.

5. (Previously Presented) The communications system defined in Claim 3, wherein said memory stores a maximum allowable time period between logging-in and disconnection of said client terminal, in conjunction with said user identifier; and

wherein said disconnection means comprises means for performing disconnection when a time period that has elapsed after a log-in operation to said server by said client terminal exceeds said maximum allowable time period stored in said memory.

6. (Previously Presented) The communications system defined in Claim 3, wherein said memory stores a maximum allowable non-communication time period for which data is not transmitted or received by said client terminal in conjunction with said user identifier; and wherein said disconnection means comprises means for performing disconnection when a non-communication time period of said client terminal exceeds said maximum allowable non-communication time period stored in said memory.

7. (Previously Presented) The communications system defined in Claim 6, wherein said server is connected to an application server which stores an application supplied to said client terminal;

wherein said maximum allowable non-communication time period is a maximum allowable time period for which a packet is not communicated between said client terminal and said application server before said client terminal is to be disconnected; and

wherein said disconnection means comprises means for monitoring arrival times of packets that have a transmission destination address or a reception destination address that is the same as an address of the client terminal, and for performing disconnection of said client terminal when a time period elapsed after an arrival time exceeds said maximum allowable non-communication time period stored in said memory.

8. (Currently Amended) The communications system defined in Claim 3, wherein said memory stores a maximum allowable simultaneous jointer count that specifies a number of said plurality of client terminals that can be simultaneously connected to said server before said client terminal is to be disconnected, in conjunction with said user identifier; and

wherein said disconnection means comprises means for performing disconnection when the number of said plurality of client terminals connected to said server exceeds the maximum allowable simultaneous jointer count stored in said memory.

9. (Previously Presented) The communications system defined in Claim 3, wherein said memory stores a maximum allowable traffic value that specifies a level of allowable traffic for said client terminal in a predetermined period of time, in conjunction with said user identifier; and

wherein said disconnection means comprises means for performing disconnection of said client terminal when a level of actual traffic for said client terminal exceeds said maximum allowable traffic value stored in said memory.

10. (Previously Presented) The communications system defined in Claim 3, wherein said memory stores a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, in conjunction with said user identifier; and

wherein said disconnection means comprises means for performing disconnection of said client terminal when a data volume of packets having a transmission or reception destination address the same as an address of the client terminal exceeds said specific volume.

11. (Previously Presented) The communications system defined in Claim 3, wherein said server is connected to an application server which stores an application supplied from said client terminal; and

wherein said memory stores an address of said application server and a timeout time, in conjunction with said user identifier; and

wherein said disconnection means comprises means for monitoring an arrival time of a packet stored in said memory, said packet being a group of an address and a service identifier, and performing disconnection immediately before elapsing a timeout time from said arrival time, said timeout time being stored in said memory in conjunction with said user identifier, said memory belonging to a group of a matching address and a matching service identifier and when the timing of said packet matching a group of an address and a service identifier is not received from an opposite party.

12. (Previously Presented) The communications system defined in Claim 3, wherein said disconnection means comprises means for disconnecting a first client terminal logged in at an earliest time when two or more of said client terminals have a same disconnection condition of the plurality of disconnection conditions.

13. (Previously Presented) The communications system defined in Claim 3, wherein said memory stores a line disconnecting order in conjunction with said user identifier; and wherein said disconnection means is means for performing disconnection of said client terminal in accordance with the line disconnecting order stored in said memory.

14. (Currently Amended) A communications method suitable for a communications system, said communications system comprising a server, a plurality of client terminals, and a communications network which interconnects said server and said plurality of client terminals, each said client terminal performing the steps of:

connecting each said client terminal to said server and establishing communications; monitoring a connection state between each said client terminal and said server; deciding whether or not said connection state corresponds to at least one of a plurality of separate and distinct disconnection conditions, wherein some of said plurality of client terminals have different disconnection conditions than others; and

disconnecting ~~said a first~~ each client terminal when it is decided that said connection state corresponds to said at least one of said plurality of disconnection conditions.

15. (Previously Presented) The communications method defined in Claim 14, wherein a client terminal logged in at an earliest time is disconnected when two or more client terminals have a same disconnection condition.

16. (Currently Amended) A communications method suitable for a communications system, said communications system comprising a server, a plurality of client terminals, and a communications network which interconnects said server and said plurality of client terminals,

each said client terminal performing the step of:

transmitting a user identifier to issue a log-in request to said server;

said server performing the steps of:

logging in each said client terminal in response to said log-in request from said client terminal;

retrieving, based on said user identifier transmitted from each said client terminal, at least one of a plurality of separate and distinct disconnection conditions that is associated with said user identifier;

monitoring a connection state of said client terminal; and

disconnecting said client terminal when said connection state corresponds to said at least one of said plurality of disconnection conditions, wherein some of said plurality of client terminals have different disconnection conditions than others.

17. (Previously Presented) The communications method defined in Claim 16, wherein said disconnection is performed when a time period elapsed from a log-in operation to said server from said client terminal exceeds a maximum allowable time period that is associated with said user identifier.

18. (Previously Presented) The communications method defined in Claim 16, wherein said disconnection is performed when a non-communication time period of said client terminal, during which data is not transmitted or received from said server, exceeds a maximum allowable non-communication time period that is associated with said user identifier.

19. (Previously Presented) The communications method defined in Claim 18, wherein said server is connected to an application server which stores an application supplied to said client terminal; and

wherein said non-communication time period is a time period for which a packet is not communicated between said client terminal and said application server; and

wherein an arrival time of a packet being in a group having a same transmission destination address and a same reception destination address is monitored, and said disconnection is performed when a monitored time period elapsed from said arrival time exceeds said maximum allowable non-communication time period.

20. (Previously Presented) The communications method defined in Claim 16, wherein said disconnection is performed when a number of client terminals simultaneously connected to said server exceeds a maximum allowable simultaneous jointer count that is associated with said user identifier.

21. (Previously Presented) The communications method defined in Claim 16, wherein said disconnection is performed when a level of actual traffic from said client to said server in a predetermined time period exceeds a maximum allowable traffic value that is associated with said user identifier.

22. (Previously Presented) The communications method defined in Claim 16, wherein said disconnection is performed when a data volume of packets being in a group having a same transmission/reception destination address as an address of the client terminal exceeds a specific volume amount that is associated with said user identifier.

23. (Previously Presented) The communications method defined in Claim 16, wherein said server is connected to an application server which stores an application supplied from said client terminal; and
wherein said method further comprises the step of monitoring an arrival time of a packet, said packet being a group of an address and a service identifier, and performing disconnection immediately before elapsing a timeout time from said arrival time, said timeout time being associated with said user identifier.

24. (Previously Presented) The communications method defined in Claim 16, wherein a client terminal logged in at an earliest time is disconnected when two or more client terminals have a same disconnection condition.

25. (Previously Presented) The communications method defined in Claim 16, wherein said disconnection is performed in accordance with a line disconnecting order that is associated with said user identifier.

26. (Currently Amended) A server comprising:

means for logging in client terminals in response to log-in requests from said client terminals;

a memory for storing a plurality of separate and distinct disconnection conditions regarding disconnection of said client terminals in conjunction with user identifiers, wherein some of said client terminals have different disconnection conditions than others;

retrieval means for retrieving at least one of said plurality of disconnection conditions based on a user identifier transmitted from a client terminal; and

disconnection means for monitoring a connection state between said client terminal and said server and for disconnecting said client terminal when said connection state corresponds to said at least one of said plurality of disconnection conditions.

27. (Previously Presented) The server defined in Claim 26, wherein said memory stores a maximum allowable time period between logging in and disconnection of said client terminal, in conjunction with said user identifier; and

wherein said disconnection means comprises means for performing disconnection when a time period that has elapsed after a log-in operation to said server by said client terminal exceeds said maximum allowable time period stored in said memory.

28. (Previously Presented) The server defined in Claim 26, wherein said memory stores a maximum allowable non-communication time period for which data is not transmitted or received by said client terminal, in conjunction with said user identifier; and

wherein said disconnection means comprises means for performing disconnection when a non-communication time period of said client terminal exceeds said maximum allowable non-communication time period stored in said memory.

29. (Previously Presented) The server defined in Claim 28, wherein said server is connected to an application server which stores an application supplied to said client terminal;

wherein said maximum allowable non-communication time period is a maximum allowable time period for which a packet is not communicated between said client terminal and said application server before said client terminal is to be disconnected; and

wherein said disconnection means comprises means for monitoring arrival times of packets being in a group having a same transmission destination address and a same reception destination address, and for performing disconnection of said client terminal when a time period elapsed after an arrival time exceeds said maximum allowable non-communication time period stored in said memory.

30. (Previously Presented) The server defined in Claims 26, wherein said memory stores a maximum allowable simultaneous jointer count that specifies a number of said client terminals that can be simultaneously connected to said server before said client terminal is to be disconnected, in conjunction with said user identifier; and

wherein said disconnection means comprises means for performing disconnection when the number of said client terminals connected to said server exceeds the maximum allowable simultaneous jointer count stored in said memory.

31. (Previously Presented) The server defined in Claim 26, wherein said memory stores a maximum allowable traffic value that specifies a maximum level of allowable traffic for said client terminal in a predetermined period of time, in conjunction with said user identifier; and

wherein said disconnection means comprises means for performing disconnection of said client terminal when a level of actual traffic for said client terminal exceeds said maximum allowable traffic value stored in said memory.

32. (Previously Presented) The server defined in Claims 26, wherein said memory stores a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, in conjunction with said user identifier; and

wherein said disconnection means comprises means for performing disconnection of said client terminal when a data volume of packets being in a group having a same

transmission/reception destination address as an address of the client terminal exceeds said specific volume.

33. (Previously Presented) The server defined in Claim 26, wherein said server is connected to an application server which stores an application supplied from said client terminal; and

wherein said memory stores an address of said application server and a timeout time, in conjunction with said user identifier; and

said disconnection means comprises means for monitoring an arrival time of a packet stored in said memory, said packet being a group of an address and a service identifier, and performing disconnection immediately before elapsing a timeout time from said arrival time, said timeout time being stored in said memory in conjunction with said user identifier, said memory belonging to a group of a matching address and a matching service identifier and when the timing of said packet matching a group of an address and a service identifier is not received from an opposite party.

34. (Previously Presented) The server defined in Claim 26, wherein said disconnection means comprises means for disconnecting a first client terminal logged in at an earliest time when two or more of said client terminals have a same disconnection condition of the plurality of disconnection conditions.

35. (Previously Presented) The server defined in Claim 26, wherein said memory stores a line disconnecting order in conjunction with said user identifier; and

wherein said disconnection means is means for performing disconnection of said client terminal in accordance with the line disconnecting order stored in said memory.

36. (Currently Amended) A recording medium in which a program is stored, said program causing a server to execute a process, said process comprising the steps of:

storing a plurality of separate and distinct disconnection conditions relating to disconnection of client terminals, wherein some of said client terminals have different disconnection conditions than others;

logging in a client terminal in response to a log-in request from said client terminal;
retrieving, based on a user identifier transmitted from said client terminal, at least one of said plurality of disconnection conditions associated with said user identifier;
monitoring a connection state between said client terminal and said server; and
disconnecting said client terminal when said connection state corresponds to said at least one of said disconnection conditions.

37. (Previously Presented) The recording medium defined in Claim 36, wherein said step of disconnecting is performed when a time period that has elapsed after the time at which said client terminal logs in to said server exceeds a maximum allowable time period between logging-in and disconnection, said maximum allowable time period being stored in conjunction with said user identifier.

38. (Previously Presented) The recording medium defined in Claim 36, wherein said step of disconnecting is performed when a non-communication time period of a client terminal exceeds a maximum allowable non-communication time period that is associated with said user identifier.

39. (Previously Presented) The recording medium defined in Claim 38, wherein said process further comprises the step of monitoring an arrival time of packets being in a group having a same transmission/reception destination addresses as an address of the client terminal; and

wherein said step of disconnecting is performed when said non-communication time period of said client terminal based on said arrival time exceeds said maximum allowable non-communication time period.

40. (Previously Presented) The recording medium defined in Claim 36, wherein said step of disconnecting is performed when a number of said client terminals connected to said server exceeds a maximum allowable simultaneous jointer count that is associated with said user identifier.

41. (Previously Presented) The recording medium defined in Claim 36, wherein said step of disconnecting is performed when a level of traffic for said client terminal exceeds a maximum allowable traffic value that specifies a maximum level of allowable traffic for said client terminal in a predetermined time period, said maximum allowable traffic value being associated with said user identifier.

42. (Previously Presented) The recording medium defined in claim 36, wherein said step of disconnecting is performed when the data volume of packets being in a group having a same transmission/reception destination addresses exceeds a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, each being associated with said user identifier.

43. (Previously Presented) The recording medium defined in Claim 36, wherein said program causes said server to store an application supplied to said client terminal, and to monitor an arrival time of a packet being a group of an address and a service identifier, said packet being stored as a group of an address and a service identifier, and performing said disconnection immediately before a stored timeout time elapses from said arrival time when the timing of said packet is not received from an opposite party.

44. (Previously Presented) The recording medium defined in Claim 36, wherein said process further comprises the step of disconnecting from a first client terminal logged in at an earliest time when two or more client terminals satisfy a same disconnection condition of the plurality of disconnection conditions.

45. (Previously Presented) The recording medium defined in Claim 36, wherein said step of disconnecting is performed in accordance with a line disconnecting order that is associated with said user identifier.